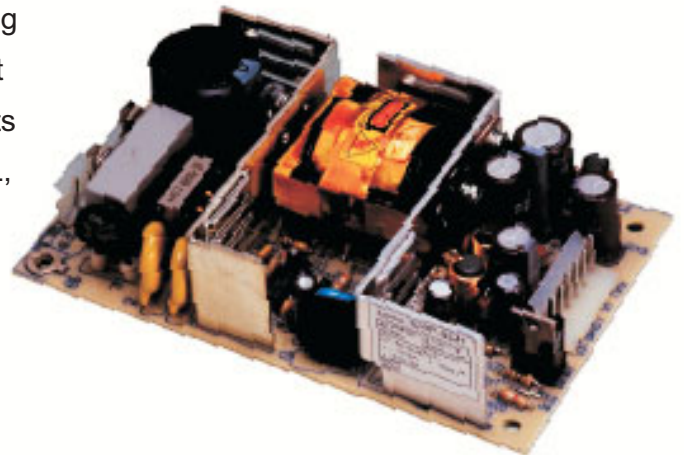


SNP-954 Series

40W AC/DC Switching Mode Power Supply Units

CoolPower
Solutions

SNP-954 series is a 40W, universal input switching mode power supply. It is with various output options, which includes triple outputs, dual outputs and single output. It is designed to comply with UL, CSA, VDE regulations and EMI Vgf 243/1991.

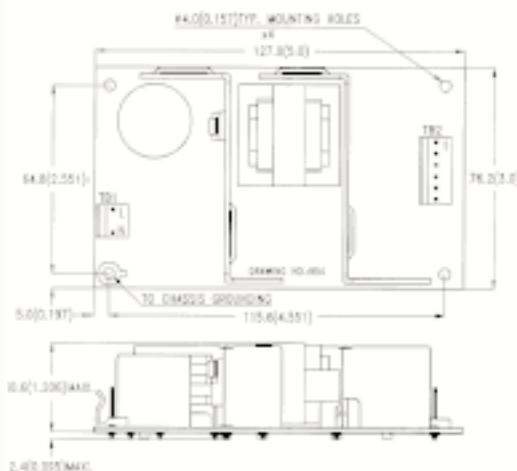


General Specifications:

Input voltage	90VAC to 264VAC	Over load protection	auto recovery & Latch-off for SNP-9543
Input frequency.....	47Hz to 63Hz	Short circuit protection	auto recovery & Latch-off for SNP-9543
Inrush current.....	for SNP-9541,9542,9543,9544 less than 30A at 115VAC (Cold start). less than 60A at 230VAC	Over voltage protection	crowbar
Inrush current	for SNP-9546,9547,9548,9549 less than 10A at 115VAC (Cold start). less than 21A at 230VAC	Operating temperature (open frame type) ..	0 to 50°C
Outputs	see output table	Cooling	Free air convection
Efficiency	higher than 70% at rated load and 115VAC	Storage temperature	-20°C to +85°C
Hold up time.....	longer than 20ms at rated load and 115VAC	EMI conduction standard	Vfg 243/1991 FCC Class "B"
			CSA 22.2 No.234 VDE EN 60 950

Mechanical Specifications:

SNP-9541



Notes:

- Dimensions shown in mm (inch) as above.
Tolerance specified is 0.4mm.
- Size
76.2 X 127 X 33 mm
3" X 5" X 1.3"
- Mounting holes
64.8 X 115.6 mm
2.55" X 4.55"
- Connectors
TB1 : Molex 5277-2 or equivalent for AC input
TB2 : Molex 5273-x or equivalent for DC output

5. TB2 Assignment

Pin Model	1	2	3	4	5	6	7	8	Pin Model	1	2	3	4	5	6
SNP-9541	+12V	+5V	+5V	GND	GND	-12V			SNP-9546	+5V	+5V	+5V	GND	GND	GND
SNP-9542	+12V	+5V	+5V	GND	GND	-5V			SNP-9547	+12V	+12V	+12V	GND	GND	GND
SNP-9543	+12V	GND	GND	+5V					SNP-9548	+15V	+15V	+15V	GND	GND	GND
SNP-9543-H	+3.3V	+3.3V	GND	GND	GND	GND	+5V	+5V	SNP-9549	+24V	+24V	+24V	GND	GND	GND
SNP-9544	+15V	+5V	+5V	GND	GND	-15V									

Output Specifications:

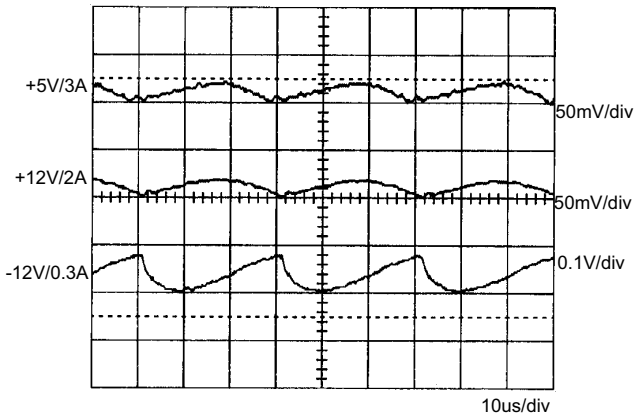
MODEL NO.	OUTPUT RAIL	LOAD			VOLTAGE ACCURACY	RIPPLE NOISE	LINE REG.	LOAD REG.
		MIN.	RATED	PEAK				
SNP-9541	+5V	0A	3A	6A	+4.95V~+5.05V	50mV	±1%	±3%
	+12V	0A	2A	4A	+11.4V~+12.6V	120mV	±2%	±3%
	-12V	0A	0.3A	0.5A	-11.4V~-12.6V	120mV	±3%	±5%
SNP-9542	+5V	0A	3A	6A	+4.95V~+5.05V	50mV	±1%	±1%
	+12V	0A	2A	4A	+11.4V~+12.6V	100mV	±2%	±3%
	-5V	0A	0.3A	0.5A	-4.75V~-5.25V	100mV	±3%	±5%
SNP-9543	+5V	0A	3A	5.5A	+4.95V~+5.05V	50mV	±1%	±1%
	+12V	0A	2A		+11.4V~+12.6V			
SNP-9543-H	+5V	0A	5A	8A	+4.95V~+5.05V	50mV	±1%	±1%
	+3.3V	0A	4A	8A	+3.14V~+3.47V	50mV	±1%	±1%
SNP-9544	+5V	0A	3A	5A	+4.95V~+5.05V	50mV	±1%	±1%
	+15V	0A	1.5A	3A	+14.25V~+15.75V	150mV	±1%	±3%
	-15V	0A	0.3A	0.5A	-14.25V~-15.75V	150mV	±1%	±3%
SNP-9546	+5V	0A	8A	12A	+4.75V~+5.25V	50mV	±1%	±1%
SNP-9547	+12V	0A	3.3A	5A	+11.9V~+12.1V	100mV	±1%	±1%
SNP-9548	+15V	0A	2.6A	4A	+14.85V~+15.15V	100mV	±1%	±1%
SNP-9549	+24V	0A	1.7A	2.5A	+23.8V~+24.2V	240mV	±1%	±1%

Note:

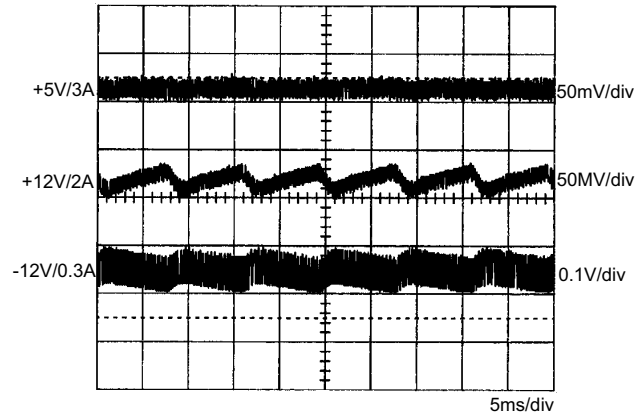
- Each output can provide up to peak load temporarily. Continuous staying in more than rated load is not allowed.
- At factory, all outputs in 60% rated load condition, each output is checked to be within the accuracy range while the main output is setting to within the specified accuracy range at rated load.
- Line regulation is defined by changing ±10% of input voltage from nominal line at rated load.
- Load regulation is defined by changing ±40% of measured output load from 60% rated load at another output set to 60% rated load.
- Ripple & noise is measured by using 15MHz bandwidth limited oscilloscope and terminated each output with a 0.47µF capacitor at rated load and nominal line.
- Hold up time is measured from the end of the last charging pulse to the time which the main output drop down to regulation limit at rated load and nominal line.
- Rated load is maximum loading for flat mounting and free air convection cooling.

Performance for SNP-9541:

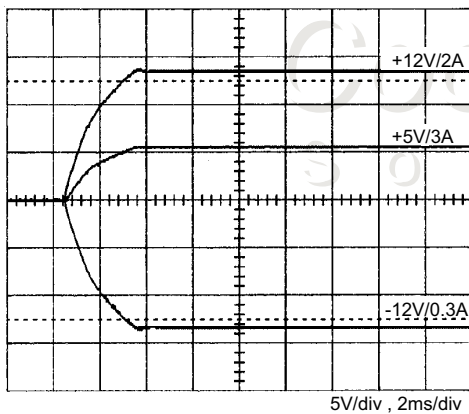
1. Switching frequency ripple



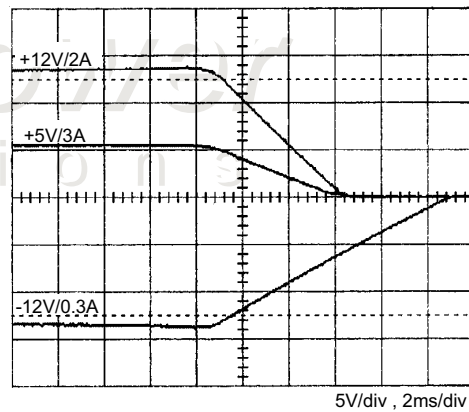
2. Line frequency ripple



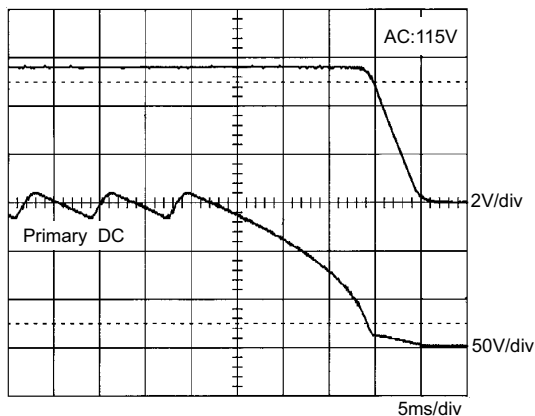
3. Output turn on wave form



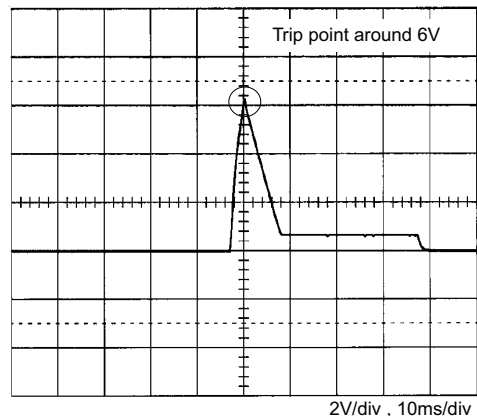
4. Output turn off wave form



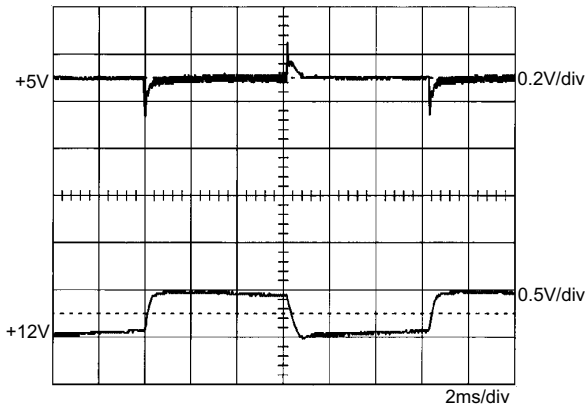
5. Hold-up time



6. Over voltage protection

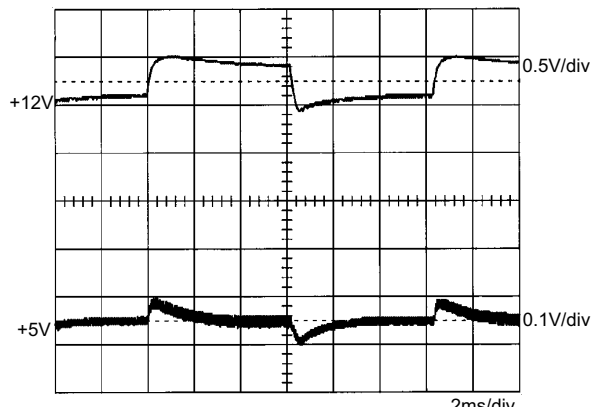


7. + 5V step response



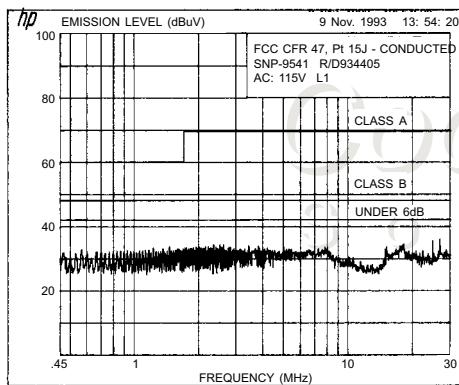
+5V steps from 0.6A to 3A
other output at 60% load

8. + 12V step response



+12V steps from 0.4A to 2A
other output at 60% load

9. FCC B performance



10. Vfg 243 performance

